# **Sticker Shock: Washington and Beyond**

- The lowest bid for the first stage of Sound Transit's HOV lane project on Interstate 90 – which went out to bid in January – was 23 percent over the agency's estimate of \$18 million.
- Costs for a pair of railroad underpasses in downtown Yakima now top \$34.7 million, up 40 percent from estimates a year and a half ago.
- In early March, the lower of two construction bids for the Cypress Avenue Bridge in Redding, California came in at \$64.2 million, some \$16 million over the engineer's estimate.
- Denver's FasTracks trains and other improvements could cost \$6.5 billion, almost 65 percent higher than 2004 estimates due to significant increases in costs of materials.
- The lower of the two bidders for the I-75 widening project in Naples, Florida came in at \$547.9 million, some \$117 million over the engineer's estimate.
- The cost of 9 HOV projects in the Tacoma area, including the replacement of the Nalley Valley Viaduct are now pegged at \$1.4 billion, up from the \$650 million estimate of 13 months ago. The growing costs are blamed on higher oil and steel prices today and even higher prices due to inflation over the next 16 years.

"Cement prices spiked. Steel prices rose, largely because of competition from new skyscrapers and roads in China. A flurry of megaprojects, and the post-hurricane reconstruction of New Orleans, triggered a labor shortage that may continue for years.

-Mike Lindblom

"Highway projects' tab goes up 31%" The Seattle Times, January 2, 2006.

# **For More Information**

www.wsdot.wa.gov/biz/construction/ Linea Laird, P.E. State Construction Engineer 360.705.7820 lairdl@wsdot.wa.gov



#### **What WSDOT Does and Does Not Influence**

#### WSDOT *does* influence:

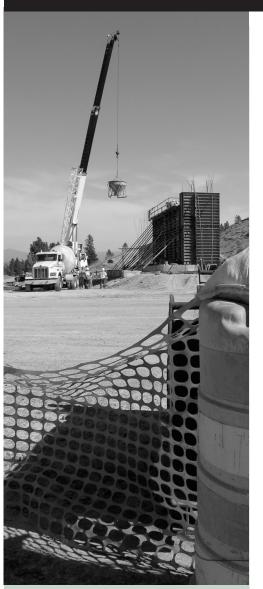
- Fair and efficient practices and risk allocating in contract administration.
- Communicating current and future job opportunities and bid advertisement schedules to promote competitive environment. This includes providing special outreach on unusual or difficult projects.
- Specifications on which contractors can confidently prepare bids and fair process for responding to bidders' questions.

#### WSDOT does not influence:

- Overall volume of public and private sector work seeking contractors or their access to key subcontractors and construction material.
- Bonding and other capacity constraints affecting contractors' appetite for work.
- Market trends in the construction industry towards consolidation and shrinkage of the local firms, especially subcontracting specialists.

WSDOT, with advice from the Washington Asphalt Paving Association (WAPA), implemented a Hot Mix Asphalt Escalation Clause on multi-year projects statewide. The escalation clause is designed to transfer some of the cost escalation risk from the contractor to the state, therefore reducing the effect of cost uncertainty on contractor's bids. There are two anticipated outcomes. First WSDOT and WAPA anticipate this will result in contractors submitting lower bids, and ultimately lower overall project costs for the state, because contractors no longer have to inflate their HMA bids out of fear of under-estimating future market prices. The second goal is to make contractors less vulnerable to losses due to sudden increases in market prices of HMA. WSDOT is using a similar escalation clause for fuel prices on select multi-year jobs that have similar risks for fuel price increases and inflated contractor bids due to fuel cost uncertainty.





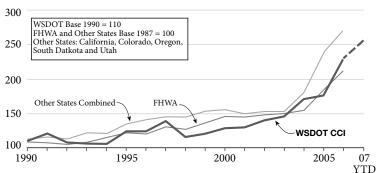
# Information About Rising Construction Costs in Washington State

- Construction Cost Index
- Asphalt, Crude Oil and Diesel Fuel Indices
- Average Number of Bidders on WSDOT Projects
- Prospects for Labor Costs
- Sticker Shock: Washington and Beyond
- What WSDOT Does and Does Not Influence

**May 2007** 

### **Construction Cost Index**

## Construction Cost Indices Washington State, FHWA, and Other States



Sources: WSDOT Construction Office, Federal Highway Administration (FHWA) Note: WSDOT 2007 Index is for Quarter 1; FHWA 2006 Data is for Quarters 1, 2 and 3; Other States 2006 Data is for the entire year.

Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on

Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on structural steel.

The average annual growth rate of the Construction Cost Index (CCI) held steady at about 1.5% per year from 1990 through 2001. Beginning in 2002 and continuing through 2005, the growth rate increased to 8% per year. In 2006, WSDOT's CCI increased 30% over 2005. WSDOT's CCI has increased 11% in the first quarter of 2007 over the annual average for 2006, from 228 to 254. Several factors have contributed to this increase including: increasing worldwide demand for construction materials; rising crude oil prices and other energy supply issues; and recent increases in national and international construction activity.

Construction industry experts are predicting further price inflation for materials associated with highway construction throughout 2007. According to Ken Simonson, Economist for the Associated General Contractors of America, the greater volatility that can be expected for petroleum, concrete, and metals products implies that highway and other heavy construction are more likely to experience large price jumps again than are building construction segments. Simonson predicts structural steel, reinforcing steel, asphalt and cement prices to rise in 2007, as well as labor costs.

The following components (weighted as shown) are used to compute the CCI:

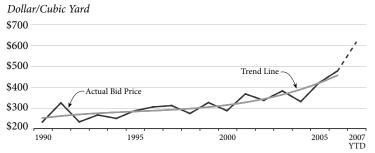
Hot Mix Asphalt (48.5%) Crushed Surfacing (7.9%) Steel Reinforcing Bar (5.4%)

Structural Concrete (17.4%) Structural Steel (6.9%) Concrete Pavement (3.2%)

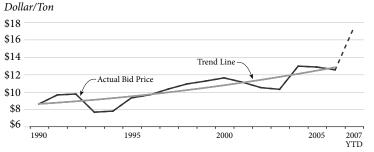
Roadway Excavation (10.7%)

According to the American Association of State Highway and Transportation Officials, Washington State is not alone. Sharply increasing construction costs and reduced competition for bids are forcing other state Transportation Departments to defer hundreds of projects as they cope with the loss in purchasing power of highway dollars.

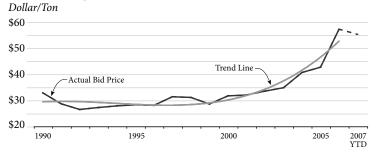
#### **Structural Concrete Unit Bid Price**



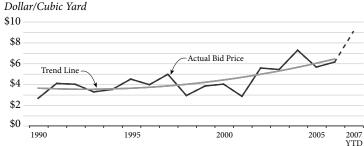
#### **Crushed Surfacing Unit Bid Price**



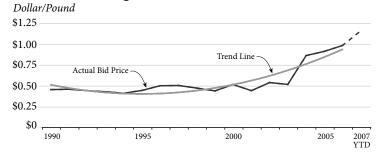
#### **Hot Mix Asphalt Unit Bid Price**



# **Roadway Excavation Unit Bid Price**



#### **Steel Reinforcing Bar Unit Bid Price**



# **Asphalt, Crude Oil and Diesel Fuel Indices**

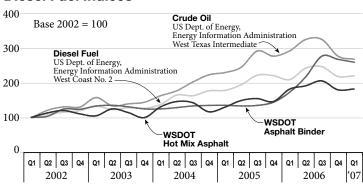
Hot Mix Asphalt (HMA) prices typically follow a similar pattern to the price of crude oil and diesel fuel. However, in recent quarters, WSDOT has seen the gap between crude oil price increases and asphalt price increases narrow. This may be due to contractors no longer being able to lockin prices from suppliers due to volatility in current market conditions. Further, with the high demand for lighter end fuels such as gasoline, refineries are investing in modifications to further break down heavier end crude oils into more lucrative lighter end fuels. This may increase demand pressure relative to supply for liquid asphalt and result in higher prices.

# **Average Number of Bidders on WSDOT Projects**

The average number of contractors bidding on each WSDOT project increased 17% in the first quarter of 2007 over the annual average for 2006, from an average of 3.1 bidders in 2006 to an average of 3.6 bidders in the first quarter of 2007. The percentage of WSDOT projects with three or more bidders increased from 52% in 2006 to 62% in 2007. WSDOT typically sees an increase in the number of bidders during the first quarter of the year, as many contractors have not reached full capacity for their summer workload at this time.

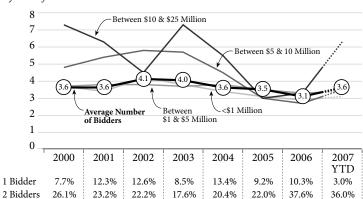
WSDOT is closely following the experiences of other owners in Washington to get a sense of the bidding climate in the state. While the number of bidders on WSDOT projects is currently improving from 2006 levels, other public works agencies are reporting the opposite. According to an April 2 article from the Puget Sound Business Journal, due to the high volume of work in Washington State local contractors are choosing not to bid on work for public agencies. In March, Sound Transit received just one bid for a light rail station at Seattle-Tacoma International Airport. The bid

# WSDOT Hot Mix Asphalt, Crude Oil and Diesel Fuel Indices



#### **Average Number of Bidders**

By Size of Contract



Source: WSDOT Construction Office

23.9%

23.2%

41.2%

15.6%

49.6%

3 Bidders

More than 42.3%

was about 60% above Sound Transit's estimate. In January, a \$40 million Western Washington University academic instruction center attracted just one bidder. The bid came in nearly 14% above the engineer's estimate.

24.2%

49.7%

22.5%

43.7%

33.3%

35.5%

19.7%

26.0%

36.0%

# **Prospects for Labor Costs**

Labor costs contribute roughly 40% to contractor costs for the delivery of a WSDOT highway construction project. Wages and benefits for construction labor should rise in 2007. In February, The Seattle Daily Journal of Commerce reported that the contractor industry predicts significant upward pressure on labor costs as a dozen union contracts are up for renewal this spring. The contracts cover carpenters, laborers, operators, cement finishers, teamsters and concrete truck drivers among others. Additionally, there are concerns that last year's concrete plant operators strike will impact this year's negotiations.

In today's booming construction market, the potential for labor shortages is high, and construction contractors are potentially facing a "premium charge" (in addition to the labor agreement renegotiations) just to attract and retain a qualified workforce. According to the Seattle Daily Journal of Commerce, a construction boom is driving the demand for workers. According to the state's Workforce Board, during last summer's building season, 44% of employers across the state said they were having trouble finding qualified workers.